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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,584	03/14/2001	John R. Jacobson	55559USA6A	3434

7590

07/08/2002

Attention: James J. Trussell
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EXAMINER

EDWARDS, LAURA ESTELLE

ART UNIT

PAPER NUMBER

1734

DATE MAILED: 07/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

64

Office Action Summary	Application No.	Applicant(s)	
	09/808,584	JACOBSON ET AL.	
	Examiner	Art Unit	
	Laura E. Edwards	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 36-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 and 57 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-35 and 57, drawn to an apparatus, classified in class 118, subclass 239.
- II. Claims 36-56, drawn to a process, classified in class 427, subclass 285.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process such as applying a powder coating composition to articles.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

1.48(b) and by the fee required under 37 CFR 1.17(i).

During a telephone conversation with David Patchett on 1/31/02 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-35 and 57. Affirmation of this election must be made by applicant in replying to this Office action. Claims 36-56 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Art Unit: 1734

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR

Claim Rejections - 35 USC § 112

Claims 3-8, 12, 13, 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, it is unclear how the apparatus being capable of coating articles of different dimensions constitutes a structural limitation. What structure enables articles of different dimension to be coated?

In claims 4 and 5, line 2, "said roller" lacks antecedent basis.

In claims 6 and 7, it is unclear how the metering bar exerting a force claimed constitutes a structural limitation.

In claim 8, it is unclear how the apparatus being capable of coating the edge face of a roll of tape constitutes a structural limitation. What structure enables this?

In claim 12, it is unclear how this claim further structurally limits claim 9 and it is unclear whether language is missing or merely punctuation.

In claim 13, "said second applicator" lacks antecedent basis.

In claims 16 and 17, it is unclear how the "capable" recitation constitutes a structural limitation.

Art Unit: 1734

In claim 16, line 5, "said second applicator" lacks antecedent basis.

In claim 17, page 14, line 3, "said second applicator" lacks antecedent basis.

In claim 18, lines 1-2, "said second applicator" lacks antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 9-16, 18-35, and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Schafer (US 5,804,256).

Shafer teaches an apparatus for coating articles comprising an applicator (1), an endless belt type conveyor (not numbered) for sequentially transporting articles to the applicator, and a metering bar (4) positioned against the applicator to meter a predetermined amount of coating to the applicator for transfer to an article transported to the applicator by the conveyor.

With respect to claim 2, Shafer recognizes the applicator being a roller that can change in range of shore hardness but the range does include the claimed shore hardness of 55 (see col. 4, line 18-19).

With respect to claim 3, inherently the apparatus can coat articles of different dimension as evidenced by col. 3, lines 13-19 whereby circuit boards of different thickness are treated.

With respect to claims 4 and 5, the radius of the metering bar is in the claimed ranged as evidenced by claim 8, lines 1-3.

Art Unit: 1734

With respect to claim 9, see roller (1).

With respect to claim 10, see web or belt applicator (9) in Fig. 2.

With respect to claim 11, see coating of upper and lower surfaces of articles via rolls in Fig. 1 and via a web or belt applicator in Fig. 2. The metering roll in Fig. 2 is not numbered but sits in the trough adjacent the web or belt.

With respect to claim 19, Schafer teaches a coating system comprising a first station including a coating apparatus (1), an endless type conveyor (not numbered) for sequentially transporting articles to the applicator, a metering bar (4) positioned against the applicator to meter a predetermined amount of coating to the applicator for transfer to an article transported to the applicator by the conveyor, and a second radiation and/or drying station (47, 48) for solidifying the coating on the article.

With respect to claim 23, see second conveyor (9) in Fig. 1 or (11) in Fig. 14.

Claims 1, 3, 9, 11-13, 16, 18-20, 25-27, 32-35, and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Schafer (US 5,863,620).

Schafer teaches an apparatus for coating articles comprising an applicator (1), a conveyor (not numbered) for sequentially transporting articles to the applicator, and a metering bar (2) positioned against the applicator to meter a predetermined amount of coating to the applicator for transfer to an article transported to the applicator by the conveyor.

With respect to claim 3, inherently the apparatus can coat articles of different dimension as evidenced by col. 4 lines 44-48 whereby circuit boards of different heights are treated.

With respect to claim 11, see second applicator (3) and second metering bar (4).

Art Unit: 1734

With respect to claim 19, Shafer teaches a coating system comprising a first station including a coating apparatus (1), a conveyor (not numbered) for sequentially transporting articles to the applicator, a metering bar (2) positioned against the applicator to meter a predetermined amount of coating to the applicator for transfer to an article transported to the applicator by the conveyor, and a second radiation and/or drying station (9; see col. 5, lines 34-39).

Claims 1, 3, 9-16, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Knain (US 2,868,162).

Knain teaches an apparatus for coating articles comprising an applicator (11), a conveyor (21) for sequentially transporting articles to the applicator, and a metering bar (47) positioned against the applicator to meter a predetermined amount of coating to the applicator for transfer to an article transported to the applicator by the conveyor.

With respect to claim 3, see col. 3, lines 38-41.

With respect to claim 9, the applicator comprises a roller (30).

With respect to claim 10, the applicator comprises an endless belt (11).

With respect to claim 11, the upper and lower surfaces of the articles are coated via web or belt applicators (11, 12) including roller applicators (30) with metering rollers (31). Metering bars (47; see col. 4, lines 52-59) are positioned on the belts.

Claims 1, 9, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Schrauwers et al (US 5,476,545).

Art Unit: 1734

Schrauwers et al teach an apparatus for coating articles comprising a roller applicator (15), a conveyor (3) for sequentially transporting articles to the applicator, and a metering bar or doctor (16) positioned against the applicator to meter a predetermined amount of coating to the applicator for transfer to an article transported to the applicator by the conveyor.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 6-8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schafer (US 5,804,256).

Schafer teaches a coating apparatus as set forth above but Schafer is silent concerning the use of a desired pressing force of the metering bar against the applicator. However, it would have been obvious to one of ordinary skill in the art to determine the appropriate metering pressing force to apply to the applicator in accordance with the coating material used and the

Art Unit: 1734

desired thickness of coating material to be deposited on the article. Such a determination of metering pressure would be determined via routine experimentation.

With respect to claim 17, even though Schafer is silent concerning the use of the apparatus for coating sides of tape, it is the Examiner's position that the Schafer apparatus would be capable of coating side edges of a roll of tape provided that the roll of tape is placed flat on Schafer's endless conveyor belt system.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schafer (US 5,804,256) in view of Kirk Othmer.

Schafer teaches a coating apparatus as set forth above but Schafer is silent concerning the radiation source being electron beam. However, it was known in the art at the time the invention was made, to use an electron beam radiation source to cure a coating material as evidenced by Kirk Othmer (see pages 832-834). It would have been obvious to one of ordinary skill in the art to utilize any appropriate source of radiation including electron beam as taught by Kirk Othmer in the Schafer coating apparatus when said appropriate source of radiation is required to cure a given coating composition on an article.

Claims 2 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schafer (US 5,863,620).

Schafer teaches a coating apparatus as set forth above and recognizes the use of a rubber applicator roller (col. 4, lines 44-48) but Schafer is silent concerning the use hardness of the rubber such as being no greater than 55 Shore A. However, it would have been obvious to one

Art Unit: 1734

of ordinary skill in the art to determine the appropriate hardness of the applicator roller via choice of a desired rubber material to use thereon in accordance with degree of flexibility needed by the applicator roller to coat an uneven article. Such a determination would be made in accordance with the article being coated.

With respect to claims 4 and 5, even though Shafer does not disclose the radius of the metering roller, it would have been obvious to one of ordinary skill in the art to use a metering roller of the smallest desired dimension to effect uniform metering of the applicator roller yet save manufacturing costs.

With respect to claims 6 and 7, Shafer is silent concerning the use of a desired pressing force of the metering bar against the applicator. However, it would have been obvious to one of ordinary skill in the art to determine the appropriate metering pressing force to apply to the applicator in accordance with the coating material used and the desired thickness of coating material to be deposited on the article. Such a determination of metering pressure would be determined via routine experimentation.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knain (US 2,868,162).

Knain teaches a coating apparatus as set forth above and recognizes the use of metering bars or doctors (47) but Knain is silent concerning the amount of pressing force exerted by the bars against the applicator belts. However, it would have been obvious to one of ordinary skill in the art to determine the appropriate metering pressing force to apply to each of the applicators in accordance with the coating material used and the desired thickness of coating material to be

Art Unit: 1734

deposited on the article. Such a determination of metering pressure would be determined via routine experimentation.

Claims 2, 3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrauwers et al (US 5,476,545).

Schauwers et al teach a coating apparatus as set forth above and recognize the use of a rubber or deformable applicator roller to coat tiles having different breath and surface imperfections (col. 2, lines 26-32). Schauwers et al are silent concerning the hardness of the rubber being no greater than 55 Shore A. However, it would have been obvious to one of ordinary skill in the art to determine the appropriate hardness of the applicator roller via choice of a desired rubber material to use thereon in accordance with degree of flexibility needed by the applicator roller to coat tiles of different breath and surface imperfections. Such a determination would be made in accordance with the article being coated.

With respect to claim 3, one of ordinary skill in the art would expect the Schrauwers et al apparatus to be capable of coating tile of different dimensions as evidenced by col. 2, lines 26-32.

With respect to claims 6 and 7, Schrauwers et al is silent concerning the amount of metering force exerted by the bars against the applicator roll. However, it would have been obvious to one of ordinary skill in the art to determine the appropriate metering pressing force to apply to the applicator roll in accordance with the coating material used and the desired thickness of coating material to be deposited on each article. Such a determination of metering force would be determined via routine experimentation.

Art Unit: 1734


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura E. Edwards whose telephone number is (703) 308-4252.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7115 for regular communications and Same as above for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Laura E. Edwards
Primary Examiner
Art Unit 1734

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July 3, 2002